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H WARREN BURNAM JR  
NIXON & VANDERHYE  
1100 N GLEBE ROAD  
8TH FLOOR  
ARLINGTON, VA 222014714

EXAMINER

PATEL, AJIT

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/272,621

Applicant(s)

TORIKKA ET AL.

Examiner

AJIT G. PATEL

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 March 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4,5,7.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6,9,23,24 are rejected under 35 U.S.C. 102(b) as being anticipated by J. Johnston (WO 96/04762).

Regarding claims 1,23, J. Johnston discloses a switch for a service node forming part of a telecommunications network incorporating the steps of dynamically configuring the functionality of at least one node of the telecommunication system by installing or modifying software in at least one board unit of the at least one node (lines 11-18, page 12); plural multifunction board units (21-23 of fig. 2), an interface towards the node (32 of fig. 3), connections between the multifunction board units and the interface, wherein a functionality type of at least one of the multifunction boards can be changed by a software change in accordance with the needs of a telecommunications system in which the node operates (lines 3-8, page 1; page 2, line 1 to line 9, page 3; page 27, line 31 to line 5, page 5; lines 1-8 of page 27; figs. 3,4).

Regarding claim 2, J. Johnston discloses the limitation "the configuring occurs in response to detecting a need for a change in the functionality of the telecommunications system" (lines 25-34, page 2).

Regarding claim 3, J. Johnston discloses the limitation "the configuring comprises the step of software reconfiguring a functionality type of one or several board

units of the at least one node during the operation of the telecommunications system”  
(lines 25-34, page 2).

Regarding claim 4, J. Johnston discloses the limitation “the configuring comprises the step of software configuring at least one application processor or an application processor module on at least one board unit” (lines 3-8, page 1; page 2, line 1 to line 9, page 3; page 27, line 31 to line 5, page 5; lines 1-8 of page 27).

Regarding claim 5, J. Johnston discloses the limitation “the configuring comprises the step of software one or several board units of the at least one node during the start up stage of the telecommunications system” (lines 25-34, page 2).

Regarding claim 6, J. Johnston discloses the limitation “the configuring comprises the step of software configuring at least one application processor or an application processor module on the at least one board unit” (lines 3-8, page 1; page 2, line 1 to line 9, page 3; page 27, line 31 to line 5, page 5; lines 1-8 of page 27).

Regarding claim 9, J. Johnston discloses the step of “loading the board unit of the node with a plurality of software versions which are capable of accomplishing different tasks in the telecommunications systems” (col. 6, lines 31 to line 5, page 7).

Regarding claim 24, J. Johnston discloses the limitation “a combination of the different functionalities are provided by the multifunction board units, the combination of the functionalities being reconfigurable under control of a control unit during the operation of the telecommunications node” (figs.3,4).

3. Claims 10-12, 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Chu et al (5,539,744).

Regarding claim 10, Chu et al disclose an ATM communication system which comprising at least one base station (111 of fig. 1), a base station controller node for controlling the at least one base station node (100 of fig. 1), a switching center node operationally connected to the base station controller node for handling the traffic from and to the at least one base station node (120 of fig. 1), wherein at least one of the nodes provides functionality for use in the operation of the telecommunications system (col. 4, line 51-line56, col. 4), and a software configurable board unit providing a general purpose resource is implemented within the at least one node, the arrangement being such that the functionality of the board unit can be changed in accordance with particular requirements of the telecommunications system (lines 1-18, col. 9).

Regarding claim 11, Chu et al disclose the limitation "the traffic is handled by means of ATM connections" (lines 3-34, col. 12).

Regarding claim 12, Chu et al disclose the limitation "the board unit comprises a software-configurable ATM multifunction Board" (lines 3-34, col. 12; col. 24, line 45-line 21, col. 25; col. 25, line 41-line 17, col. 26).

Regarding claim 15, Chu et al disclose the limitation "the at least one node comprises plural board units forming a pooled resources" (line 41-line 17, col. 26; col. 26, line 59-line 11, col. 27).

4. Claims 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Daniel et al (5,726,985).

Regarding claim 17, Daniel et al disclose ATM communication system which comprises an ATM interface (col. 5, lines 54-line 56, col.7; col. 10, line 25-line 56, col.7), a board processor unit (col. 5, lines 54-line 56, col.7; col. 10, line 25-line 56, col.7), an application processor (col. 5, lines 54-line 56, col.7; col. 10, line 25-line 56, col.7), wherein the arrangement of the board unit is such that wherein the board processor unit selectively changes a functionality type of the application processor, whereafter the application processor provides a changed functionality type towards the ATM interface (col. 5, lines 54-line 56, col.7; col. 10, line 25-line 56, col.7; col. 10, line 25-line 15,col.12).

Regarding claim 18, Daniel et al disclose the limitation "a direct UTOPIA bus which connects the ATM interface with the application processor" (lines 22-37, col. 13; col. 28, line 63 to line 12, col. 29).

Regarding claim 19, Daniel et al disclose the limitation "a direct UTOPIA bus which connects the ATM interface with the board processor unit" (lines 22-37, col. 13; col. 28, line 63 to line 12, col. 29).

Regarding claim 20, Daniel et al disclose the limitation "a direct UTOPIA bus which connects the board processor unit with the application processor" (lines 22-37, col. 13; col. 28, line 63 to line 12, col. 29).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7,8,13,14,16,25-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over J. Johnston in view of Chu et al.

Regarding claims 7 and 8, J. Johnston does not specifically disclose that the network of J. Johnston is Cellular network which includes base station, controller and mobile switching center and handle ATM cells. Chu et al disclose includes base station, controller and mobile switching center which comprises includes base station, controller and mobile switching center (lines 25-33, col.3; figs. 2, 22). Therefore, it would have been obvious to one skilled in the art to use includes base station, controller and mobile switching center as taught by Chu et al in the system of J. Johnston in order to provide the wireless ATM service to the users.

Regarding claims 13,14,16, J. Johnston does disclose a processor, application processor and interface logic (see figs.3, 4). However, The system of J. Johnston is not an ATM system. Chu et al disclose an ATM system (see fig. 2). Therefore, it would have been obvious to one skilled in the art to use ATM system as taught by Chu et al in the system of J. Johnston in order to provide the ATM service to the users.

Regarding claims 25,30-32,35-38,41, J. Johnston disclose J. Johnston incorporating the step of detecting a change in resource requirements in the node (); dynamically changing the functionality type of at least one of the

functional processors during operation of the node and in response to detection of the change in requirements, thereby providing a changed functionality distribution within the node. The network system of J. Johnston is not a cellular network. Chu et al disclose a cellular network (lines 52-59, col.4) having base station controller which perform handoff (lines 13-16, col. 1). Therefore, it would have been obvious to one skilled in the art to replace the network of Johnston by the cellular network as taught by Chu et al depends on the availability of the networks.

Regarding claims 26-29, J. Johnston et al disclose the node further comprises a node main processor and a switch through which the node main processor and plural board devices are connected (); wherein the node main processor downloads a new functionality type to at least one of the functional processors during operation of the node and in response to detection of the change in requirements ().

7. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daniel et al in view of J. Johnston.

Daniel et al disclose all the claimed subject matter as described in previous paragraph except that the board unit comprising plural application processors formed by application processor modules comprising one or more sub-processors and interfacing logic. J. Johnston disclose the board unit comprising plural application processors formed by application processor modules

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comprising one or more sub-processors and interfacing logic (52---55, 41-44 of fig. 4). Therefore, It would have been obvious to one skilled in the art to use the board unit comprising plural application processors formed by application processor modules comprising one or more sub-processors and interfacing logic as taught by J. Johnston et al in the system of Daniel et al in order to increase the processing speed of the system.

8. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daniel et al in view of Chu et al.

Daniel et al disclose all the claimed subject matter as described in previous paragraph except that the board unit is a software configurable multifunction board capable of forming at least one of the following resources: DHT board, EC board, UADP board, PADP board, IPR board, ALT board or SMX board. Chu et al disclose the board unit which is a software configurable multifunction board capable of forming at least one of the following resources: DHT board, EC board, UADP board, PADP board, IPR board, ALT board or SMX board (col. 26, line 59 through line 11, col. 27). Therefore, it would have been obvious to one skilled in the art to use the board units which is a software configurable multifunction board capable of forming at least one of the following resources: DHT board, EC board, UADP board, PADP board, IPR board, ALT board or SMX board as taught by Chu et al in the system of Daniel et al in order to provide different services to the users.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AJIT G. PATEL whose telephone number is 703-308-5347. The examiner can normally be reached on MONDAY-THURSDAY.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AP

  
Ajit Patel  
Primary Examiner